

Our Ref: ID3074
Your Ref: SSD-63207219

14 May 2025

Pragya Mathema
Department of Planning, Housing & Infrastructure
Locked Bag 5022
Parramatta NSW 2124
Via email

email: pragya.mathema@dpie.nsw.gov.au
CC: sonya.steel@ses.nsw.gov.au

Dear Pragya,

State Significant Development Application for Kingswood Battery Energy Storage System

Thank you for the opportunity to provide comment on the State Significant Development Application for Kingswood Battery Energy Storage System at 744 Burgmanns Lane, Kingswood (the Site). It is understood that the proposal would involve construction and operation of the following:

- Battery Energy Storage System including battery enclosures, inverters, transformers, switch gear and control building.
- Onsite 33/330 kilovolt substation to convert electricity from the medium voltage Battery Energy Storage System to the high voltage transmission network.
- High voltage transmission connection (above ground and/or below ground) between the Battery Energy Storage System and the Tamworth substation.
- Ancillary infrastructure and mitigative features including internal access roads, operations and maintenance building and staff amenities and office.
- The BESS would operate 24 hours a day, seven days a week and be monitored remotely, with infrastructure maintenance undertaken on-site

The NSW State Emergency Service (NSW SES) is the agency responsible for dealing with floods, storms and tsunami in NSW. This role includes, planning for, responding to and coordinating the initial recovery from floods. As such, the NSW SES has an interest in the public safety aspects of the development of flood prone land, particularly the potential for changes to land use to either exacerbate existing flood risk or create new flood risk for communities in NSW.

The NSW SES recommends that consideration of flooding issues is undertaken in accordance with the requirements of NSW Government's Flood Prone Land Policy as set out in the [Flood Risk Management Manual](#) 2023 (the Manual) and supporting guidelines, including the [Support for Emergency Management Planning](#) and relevant planning directions under the *Environmental Planning and Assessment Act, 1979*. Some of the key considerations relating to emergency management are further detailed in Appendix A.

In summary, we:

- Note that the Site was not identified as being subject to flood-related development controls or within the flood planning area in the Floodplain Risk Management Study and Plan¹ and is beyond the mapped extent for flood affected land as outlined in the Tamworth Regional Council Development Control Plan². As the current flood mapping does not extend far upstream of Tamworth, we recommend ensuring the local flood risk is considered up to the PMF, including Calala Creek, Goonang Creek and Goonoo Goonoo Creek.
- Note that the access to the Site is subject to Goonoo Goonoo Creek flooding at Whitehouse Lane or Burgmanns Lane³.
- Support the consideration of flooding in the design of an alternative route, and recommend that where possible site design permits for access and egress during a significant flood event (e.g. 1 in 500 year event) that does not require people to enter floodwater.
- Recommend considering the impacts of climate change. It is estimated that the actual probability of a 1 in 100 AEP for this catchment area is approximately a 1 in 42 AEP event for the current scenario.⁴ For the proposed development site, this could result in more frequent isolation than what is currently expected based on previous modelling.

You may also find the following Guidelines available on the NSW SES website useful:

- [Reducing Vulnerability of Buildings to Flood Damage](#)
- [Designing Safer Subdivisions](#)
- [Managing Flood Risk Through Planning Opportunities](#)

Please feel free to contact Gillian Webber via email at rra@ses.nsw.gov.au should you wish to discuss any of the matters raised in this correspondence. The NSW SES would also be interested in receiving future correspondence regarding the outcome of this referral via this email address.

Yours sincerely,



Elspeth O'Shannessy
Manager Emergency Risk Assessment
NSW State Emergency Service

¹ HydroSpatial. 2024. Tamworth City Wide Floodplain Risk Management Study and Plan - Riverine

² Tamworth Regional Council. 2010. Development Control Plan

³ ARCADIS. 2024. SSD-63207219 - Kingswood BESS Environmental Impact Statement. P145

⁴ WMAwater. 2025. Climate Change Calculator. Retrieved 14 May 2025 from <https://ccc.wmawater.com.au/>

ATTACHMENT A: Principles Outlined in the Support for Emergency Management Planning Guideline⁵

Principle 1 Any proposed Emergency Management strategy should be compatible with any existing community Emergency Management strategy.

Any proposed Emergency Management strategy for an area should be compatible with the strategies identified in the NSW State Flood Plan⁶ and the Tamworth Local Flood Plan⁷, where evacuation is the preferred emergency management strategy for people impacted by flooding.

Principle 2 Decisions should be informed by understanding the full range of risks to the community.

Decisions relating to future development should be risk-based and ensure Emergency Management risks to the community of the full range of floods are effectively understood and managed.

We note that the Site was not identified as being subject to flood-related development controls or within the flood planning area in the Floodplain Risk Management Study and Plan⁸ and is beyond the mapped extent for flood affected land as outlined in the Tamworth Regional Council Development Control Plan⁹. As the current flood mapping does not extend far upstream of Tamworth, we recommend ensuring the local flood risk is considered up to the PMF, including Calala Creek, Goonang Creek and Goonoo Goonoo Creek. As the access to the Site is subject to Goonoo Goonoo Creek flooding at Whitehouse Lane or Burgmanns Lane¹⁰, we support the consideration of flooding in the design of an alternative route, and recommend that where possible site design permits for access and egress during a significant flood event (e.g. 1 in 500 year event) that does not require people to enter floodwater.

We would like to emphasise that the NSW SES has responded to multiple flood related requests around the site, including flood rescues and sandbagging requests for property protection in the area, including Burgmanns Lane, Whitehouse Lane and Calala Lane.

Principle 3 Development of the floodplain does not impact on the ability of the existing community to safely and effectively respond to a flood.

⁵ NSW Government. 2023. Principles Outlined in the Support for Emergency Management Planning Guideline

⁶ NSW Government. 2024. NSW State Flood Plan. Section 5.1.7, page 34

⁷ NSW SES. 2023. Tamworth Regional Local Flood Plan.

⁸ HydroSpatial. 2024. Tamworth City Wide Floodplain Risk Management Study and Plan - Riverine

⁹ Tamworth Regional Council. 2010. Development Control Plan

¹⁰ ARCADIS. 2024. SSD-63207219 - Kingswood BESS Environmental Impact Statement. P145

Principle 4 Decisions on development within the floodplain does not increase risk to life from flooding.

Managing flood risks requires careful consideration of development type, likely users, and their ability respond to minimise their risks. This includes consideration of:

- Isolation – There is no known safe period of isolation in a flood, the longer the period of isolation the greater the risk to occupants who are isolated.
- Secondary risks – This includes fire and medical emergencies that can impact on the safety of people isolated by floodwater. The potential risk to occupants needs to be considered and managed in decision-making.
- Consideration of human behaviour – The behaviour of individuals such as choosing not to remain isolated from their family or social network in a building on a floor above the PMF for an extended flood duration or attempting to return to a building during a flood, needs to be considered.

Current evidence suggests that flood events will become more frequent due to climate change. A Climate Change Calculator has been developed to address the updated ARR climate change guidelines¹¹, recommending the adjustment of the BoM 2016 IFDs to account for the warming that has occurred since the mid-point of the data used for their development (1961-1990). This results in a significant increase in existing conditions flood levels.¹²

The change in flood probabilities with climate change for this area results in the new probability of the 1 in 100 AEP to be approximately 1 in 42 AEP event for the current 2025 scenario, becoming even more frequent in the future.¹³ For the proposed development site, this could result in more frequent isolation than what is currently expected based on previous modelling.

Principle 5 Risks faced by the itinerant population need to be managed.

An Emergency Management strategy needs to consider people visiting or working on site.

The NSW SES recommend incorporating flooding into the site emergency plan, which is consistent with the NSW SES State and Local Plans identified in Principle 1. Please note that the NSW SES does not have the statutory authority to endorse private Flood Emergency Response Plans and evacuation plans nor does it have the resources to review and comment on private plans for individual businesses.

Principle 6 Recognise the need for effective flood warning and associated limitations.

¹¹ Wasko et al. 2024. A systematic review of climate change science relevant to Australian design flood estimation. *Hydrology and Earth System Sciences*. 28: 1251-1285

¹² Babister et al. 2024. Climate Change Calculator: Estimating Changes to Flood Probability Under Different Climate Change Scenarios, page 1

¹³ WMAwater. 2025. Climate Change Calculator. Retrieved 14 May 2025 from <https://ccc.wmawater.com.au/>

An effective flood warning strategy with clear and concise messaging understood by the community is key to providing the community an opportunity to respond to a flood threat in an appropriate and timely manner.

Currently there is a flood warning gauge located in Tamworth on the Peel River. This provides approximately 6 hours warning time for the township prior to a flood occurring¹⁴. This may not always correspond to the flooding on Goonoo Goonoo Creek.

NSW SES utilises the Australian Warning System which is a nationally consistent, three-tiered approach to issue clear warnings and lead people to take action ahead of severe weather events. The three warning tiers consist of Advice, Watch and Act and Emergency Warning. These warnings can be viewed on the SES website and the HazardWatch website and app.

Principle 7 Ongoing community awareness of flooding is critical to assist effective emergency response.

Development in a floodplain will increase the need for NSW SES to undertake continuous community awareness, preparedness, and response requirements.

The flood risk at the site and actions taken to reduce risk to life should be communicated to all site users (includes increasing risk awareness, community connections, preparedness actions, appropriate signage and emergency drills) during and after the construction phase. However, it is important to note that the NSW SES is opposed to the imposition of development consent conditions requiring private flood evacuation plans rather than the application of sound land use planning and flood risk management.

¹⁴ Australian Government. 2024. Service Level Specification for Flood Forecasting and Warning Services for New South Wales and the Australian Capital Territory – Version 3.15